

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of the Claims**

1. (Previously Presented) An apparatus, comprising modulating means for performing multi-carrier modulations wherein it further comprises:

memory means for storing digital values based upon the crest factors associated with a plurality of types of modulation;

processing means for retrieving a digital value based on the crest factor corresponding to the type of modulation associated with a transmission signal from said memory means;

converting means converting said retrieved digital value based on the crest factor corresponding to the type of modulation associated with a transmission signal to an analog signal;

amplifying means for amplifying the transmission signal controlled by the analog signal converted from said retrieved digital value based on the crest factor corresponding to the type of modulation associated with a transmission signal, decreasing bias current when decreasing the efficiency per bit of the digital modulation and vice versa.

2. (Previously Presented) The apparatus of claim 1, further comprising signal transmitting means for wirelessly transmitting said transmission signal.

3. (Previously Presented) The apparatus of claim 1, wherein said type of modulation includes one of:

bi-phase shift keyed modulation;

quadrature phase shift keyed modulation; and

quadrature amplitude modulation.

4. (Previously Presented) The apparatus of claim 1, wherein said transmitter apparatus is part of a mobile transceiver having a battery power supply.

5. (Previously Presented) A method for controlling a transmitter apparatus, comprising:  
storing digital values based upon crest factors associated with a plurality of types of modulation;  
identifying and retrieving a stored digital value based on the crest factor corresponding to a type of digital modulation for a transmission signal;  
converting said retrieved digital value based on the crest factor corresponding to a type of digital modulation for a transmission signal to an analog signal; and  
controlling power amplification of said transmission signal using said analog signal converted from said retrieved digital value based on the crest factor corresponding to a type of digital modulation for a transmission signal in decreasing a bias current of the amplifier when decreasing the efficiency per bit of the digital modulation and vice versa.
6. (Previously Presented) The method of claim 5 further comprised of wirelessly transmitting said transmission signal.
7. (Canceled)
8. (Previously Presented) The method according to claim 5 wherein bias current is decreased when digital modulation is changed from 64 QAM 3/4 to BPSK 1/2.
9. (Previously Presented) The method according to claim 7 wherein it is in compliance with one of the standards belonging to the set comprising:  
Hiperlan type 2;  
IEEE 802.11a; and  
DVB-T 802.16a.
10. (Previously Presented) The method of claim 5, wherein said type of digital modulation includes one of:  
bi-phase shift keyed modulation;  
quadrature phase shift keyed modulation; and  
quadrature amplitude modulation.

11. (Previously Presented) An apparatus, comprising:
  - a memory for storing digital values based upon the crest factors associated with a plurality of types of modulation;
  - a processor for retrieving a digital value based on the crest factor corresponding to the type of modulation associated with a transmission signal from said memory;
  - a digital analog converter converting said retrieved digital value based on the crest factor corresponding to the type of modulation associated with a transmission signal to an analog signal;
  - a power amplifier for amplifying the transmission signal controlled by the analog signal converted from said retrieved digital value based on the crest factor corresponding to the type of modulation associated with a transmission signal, decreasing bias current when decreasing the efficiency per bit of the digital modulation and vice versa.
12. (Previously Presented) The apparatus of claim 11, further comprising a signal transmitting element operative to wirelessly transmit said transmission signal.
13. (Previously Presented) The apparatus of claim 11, wherein said type of digital modulation includes one of:
  - bi-phase shift keyed modulation;
  - quadrature phase shift keyed modulation; and
  - quadrature amplitude modulation.
14. (Previously Presented) The apparatus of claim 11, further comprising a modulator operative to perform a plurality of different types of digital modulation.
15. (Previously Presented) The apparatus of claim 11, wherein said apparatus is embodied as a mobile transceiver having a battery power supply.